GE Silicones

RTF8510

Black, Silicone Rubber Foam

Product Description

RTF8510 silicone rubber foam is a liquid compound which cures at room temperature to a medium density foam with the addition of a curing agent. The product is a two-component product, supplied in kit form. Thorough mixing of the base compound with the curing agent initiates the chemical reaction which results in the formation of a foam within 20 minutes at room temperature.

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Key Performance Properties

- 1:1 mix ratio by weight or volume
- Low viscosity - easily pourable
- Medium density flexible foam
- Room temperature cure
- Formulated to resist cracking and splitting after cure

Applications

- Pour-in-place thermal insulation
- Mechanical cushioning
- Firestop systems
- Flexible foam rubber molded parts
- Sprayed insulation systems
- Sound dampening

Typical Product Data

Uncured Properties

Property	RTF8510A Base	RTF8510B Curing Agent
Color	Black	Beige
Viscosity (cps)	9,000	6,000
Specific Gravity	1.2	1.2

Typical Cured Properties
(Mixed 1:1 by weight at 25C)

Mixed Properties	
Appearance	Black, uniform color
Initial viscosity (cps)	7,500
Work Time (minutes)	3
Expansion ratio	4:1
Time for full rise (minutes)	20
Cured Properties	
Physical	
Appearance	Black, flexible foam
Density (lb/ft^3)	16
Thermal(1)	
Thermal Conductivity (BTU in/hr, ft^2, °F)	0.44
Operating Temperature Range	-60°C-204°C (-75° -400°F)
Flammability(2)	

Radiant Panel (ASTM E-162) Flame Spread	18
Smoke Density (ASTM E-662/NFPA258) Flaming (4 minutes)	41
Smoldering (4 minutes)	70
Oxygen Index	30

(1) Information provided for customer convenience. These properties not tested on a routine basis.

Specifications

Typical product data values should not be used as specifications. Assistance and specifications are available by contacting GE Silicones at 800/255-8886.

(2) FLAMMABILITY

The above test, claims, representations and descriptions regarding the flammability of the product described are based on a standard small scale laboratory test and as such are not reliable for determining, evaluating, predicting or describing the flammability or burning characteristics of this product under actual fire conditions, whether this product is used alone or in combination with other products.

Instructions for Use

- The individual RTF8510A and RTF8510B components should be thoroughly stirred prior to mixing.
- Do not cross-contaminate the containers.
- Mix the A and B components together at a ratio of 1:1 by weight in a large container.
- A uniform black color is seen when A and B components are completely mixed.
- At 25C, RTF8510 will have a gel time of approximately 2.5 minutes.
- Higher temperatures in the working area will decrease the work time.
- Chilling the RTF8510A and B components will increase the work time.
- Temperature of 0°C or below should be avoided.
- When hand mixing, use a clean, flat-sided spatula or paint stirrer. Material clinging to sides and bottom of the container should be stirred completely into the main contents.
- If a power mixer is used, only two fifteen-second cycles are usually required for thorough mixing.
- Avoid high mixer speeds which could cause heating of the material.
- Sides and bottom of container should be scraped with a spatula between cycles.
- Automatic dispensing machines designed to meter, mix and dispense silicone foam materials are available. For additional information, contact GE Silicones

WARNING: This product expands by the evolution of hydrogen gas. Mixing and handling of catalyzed material should be done in well ventilated areas away from sparks, flames, or other sources of ignition in and above the work area.

SURFACE COMPATIBILITY

Cure inhibition of RTF8510 silicone foam may occur in contact with many material including:

- Vinyl plastics
- Synthetic and natural rubbers
- Sulfur-containing materials, such as polysulfides
- Tin soaps
- Certain epoxies containing strong amine catalysts
- Some clays
- Some woods
- Certain leathers
- Certain tape adhesives
- Some heat cured rubbers
- Chlorinated substances, such as neoprene
- Latex gloves. Each application should be tested for compatibility.

SUBSTRATE PREPARATION

If adhesion is required, surface must be clean and dry
Clean with non-oily solvent such as:

- Methyl ethyl ketone (MEK)
- Toluene
- Xylene

Other cleaners may be used if:

- They remove the contaminant
- They are not oily
- They do not leave a residue
- After surface is cleaned and dried, RTF8510 foam can be mixed and applied to the surface.

ADHESION

RTF8510 will bond to many materials including:

- Aluminum
- Steel
- Glass
- Fiberglass

Adhesion is improved by the following methods:

- Time: 24 hours at 25°C (unprimed)
- Temperature: 1 hour at 50°C (unprimed)
- Priming: SS4155 primer

Cured RTF8510 can be bonded to other surfaces using:

- One component RTV silicone
- Additional RTF8510

Handling and Safety

Material Safety Data Sheets are available upon request from GE Silicones. Similar information for solvents and other chemicals used with GE products should be obtained from your suppliers. When solvents are used, proper safety precautions must be observed.

CAUTION: RTF8510B curing agent can generate flammable hydrogen gas on contact with acidic, basic or oxidizing materials, and such contact must be avoided. Keep curing agent container tightly closed.

Storage and Warranty Period

The warranty period is six months from date of shipment from GE Silicones if stored in the original unopened container at 27°C (80°F).

Availability

RTF8510 silicone rubber foam may be ordered from GE Silicones, Waterford, New York 12188, or from the GE Silicones sales office nearest you.

Government Requirement

Prior to considering use of a GE Silicones product in fulfilling any Government requirement, please contact the Government and Trade Compliance office at 413-448-4624.

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